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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,660

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Jukka Gustafsson

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7812

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09/14/2010

CHERNOFF, VILHAUER, MCCLUNG & STENZEL, LLP
601 SW Second Avenue, Suite 1600
Portland, OR 97204

EXAMINER

ELOSHWAY, NIKI MARINA

ART UNIT

PAPER NUMBER

3781

MAIL DATE

DELIVERY MODE

09/14/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,660	Applicant(s) GUSTAFSSON ET AL.	
	Examiner NIKI M. ELOSHWAY	Art Unit 3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 27-34, 37-43 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulati (U.S. 2001/0040160) in view of Bampton (U.S. 5,697,511) and McLaughlin (U.S. 3,941,272). Gulati teaches a method of manufacturing a tank suitable for storing very cold cryogenic liquids, such as liquefied ethylene (LEG) or natural gas (LNG) or a corresponding medium (see paragraph [0004]). The basic form of the tank corresponding to a rectangular prism (shown in figure 2, see paragraph [0015]) and being manufactured from aluminum or the like material (see paragraph [0037]). The tank is produced at least mainly from prefabricated structure elements of few different types so that plane elements meant as shell elements, shown at 17, are produced and include a plane part (the exterior) and a stiffening part (27 and 28 on the interior surface). The stiffening part extends essentially perpendicular to the plane part in to the cavity of the tank, and terminates at a free distal end. The profile elements are welded to each other (see paragraph [0042]). The self-supporting volume units are shown in figures 1c and 1d and have at least four sides. The stiffeners extending only partly through the internal space of the volume units between the opposite sides thereof. The variable length is discussed in paragraph [0036].

Gulati discloses the claimed invention except for the welding being friction welding and the aluminum elements being mechanically extruded. Bampton teaches that it is known to provide a sectional container wherein the sections are joined by friction welding (see the Abstract). It would have been

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obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Gulati with the welds being formed by friction welding, as taught by Bampton, in order to use a well known welding technique to form a secure weld between the sections.

McLaughlin teaches that it is known to mechanically extrude aluminum elements (see col. 6 lines 3-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified method of Gulati with the aluminum elements being mechanically extruded, as taught by McLaughlin, in order to form the elements using a well known technique.

3. Claims 35, 36 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulati (U.S. 2001/0040160) in view of Bampton (U.S. 5,697,511) and McLaughlin (U.S. 3,941,272), as applied to claims 14 and 22 above, and further in view of Slota (U.S. 2,947,440). Gulati discloses the claimed invention except for the splash bulkhead. Slota teaches that it is known to provide a sectional container with a splash bulkhead (see element 33). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the container of Gulati with the splash bulkhead, as taught by Slota, in order to prevent a surge of liquid in the container.

Regarding claim 36, the modified method of Gulati discloses the claimed invention except for the dimension of the volume unit and bulkhead being about 16x16 meters. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified method of Gulati with the volume unit and bulkhead being about 16x16 meters, in order to give the container a standard shape and since a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Response to Arguments

4. Applicant's arguments filed June 25, 2010 have been fully considered but they are not persuasive. Applicant argues that the modified method of Gulati does not teach that “structure 17/27/28 should be fabricated by providing first mechanically extruded aluminum profile elements, forming an intermediate element by attaching the first profile elements to each other using friction welding, providing second mechanically extruded aluminum profile elements, forming a stiffener by attaching the second profile elements to each other by friction welding, and attaching the stiffener to the intermediate element to form the first plane element, as recited in claim 27.” The Examiner disagrees with this position. Gulati teaches that the thin plate cover 17, the grillage of stiffeners 27 and stringers 28 and the internal truss frame structure 18 can be constructed of aluminum or aluminum alloys in paragraph [0037]. The tertiary reference of McLaughlin (U.S. 3,941,272) is used in the rejection for the teaching of mechanically extruding aluminum elements. The secondary reference of Bampton is used for the teaching of using friction welding to secure elements of a structure together. The primary reference of Gulati teaches tank structures with plane parts (17 in figure 1C, or 86, 85 in figure 5A), and stiffening parts (27, 28 figure 1C, or at 88 in figure 5A). These elements are welded together in various combinations to form a completed tank structure.

5. Applicant also argues that “Gulati does not disclose manufacture of a self-supporting volume unit within the meaning of claim 27, since the tank sections 81a, 82b, 82a and 81 b (FIG. 7, for example) are based on utilizing a separate truss frame structure assembled inside the tank sections.” It is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. Applicant argues that “the truss frame structure includes elements extending through the entire internal space of the tank sections between opposite sides thereof.” The Examiner disagrees with this

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position. Figures 5A, 9A and 9B, show truss frame structures which do not extend through the entire internal space of the tank sections. These truss frame structures that are shown in figures 5A, 9A and 9B can be considered the stiffeners.

7. The addition of McLaughlin (U.S. 3,941,272) to the rejection was necessitated by the amendment filed June 25, 2010, which clarified the vague language of the previous claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKI M. ELOSHWAY whose telephone number is (571)272-4538. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony Stashick/
Supervisory Patent Examiner, Art Unit 3781

/Niki M. Eloshway/
Niki M. Eloshway
Examiner
Art Unit 3781

nme